

WHAT IS CLAIMED IS:

1. An apparatus for ligating living tissues comprising:

an introducing tube capable of being inserted into  
5 a living body cavity;

a manipulating wire movably inserted into the  
introducing tube;

at least two or more clips; and

10 a connecting member which engages the clips and  
the manipulating wire with each other, wherein, in  
ligating the clips to a living tissue, a tensile stress  
of the manipulating wire is always applied only to the  
clip located at the most distal end.

2. A mechanism according to claim 1, wherein said  
15 clip positioned at the most distal end is engaged with  
said manipulating wire, and said clips other than the  
clip have said connecting member capable of freely  
moving on said manipulating wire.

3. A mechanism according to claim 1, wherein said  
20 connecting member is a loop shaped wire formed between  
said manipulating wire and said clip.

4. A mechanism according to claim 1, wherein the  
mechanism has: a clip tightening ring engagingly  
mounted at an arm section of said clip, thereby closing  
25 a pinch section of said clip; and engaging means  
provided at least at one of said introducing tube and  
said clip tightening ring, which causes said

introducing tube and sail clip tightening ring to be engaged with each other when said clip and said clip tightening ring are protruded forwardly of said introducing tube, and inhibits said clip tightening ring from being stored in said introducing tube again.

5           5. A mechanism according to claim 1, wherein, when a tensile stress is applied between said clip and said manipulating wire, said connecting member is configured to be deformed or broken more easily than  
10       said manipulating wire.

6. An apparatus for ligating living tissues comprising:

          an introducing tube capable of being inserted into a living body cavity;

15           a manipulating wire movably inserted into said introducing tube;

          at least two or more clips;

          a connecting member which causes said clip and said manipulating wire to be engaged with each other;  
20       and

          a partition member provided between said clip and said manipulating wire.

7. A mechanism according to claim 6, wherein the mechanism has:

25           a clip tightening ring engagingly mounted on an arm section of said clip, thereby closing a pinch section of said clip; and

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engaging means provided at least one of said  
introducing tube and said clip tightening ring, which  
causes said introducing tube and said clip tightening  
ring to be engaged when said clip and said clip  
5 tightening ring are protruded forwardly of said  
introducing tube, and inhibits said clip tightening  
ring from being stored in said introducing tube again.

8. A mechanism according to claim 6, wherein,  
when a tensile stress is applied between said clip and  
10 said manipulating wire, said connecting member is  
configured to be deformed or broken more easily than  
said manipulating wire.

9. An apparatus for ligating living tissues  
comprising:  
15 an introducing tube capable of being inserted into  
a living body cavity;

a manipulating wire movably inserted into said  
introducing tube;

at least two or more clips;  
20 a connecting member which causes said clip and  
said manipulating wire to be engaged with each other;  
and

a restricting member which externally engages at  
least one of a pair of arm sections of said clip.

25 10. A mechanism according to claim 9, wherein the  
mechanism has:

a clip tightening ring engagingly mounted on an

arm section of said clip, thereby closing a pinch section of said clip; and

engaging means provided at least one of said introducing tube and said clip tightening ring, which causes said introducing tube and said clip tightening ring to be engaged with each other when said clip and said clip tightening ring are protruded forwardly of said introducing tube, and inhibits said clip tightening ring from being stored in said introducing tube again.

11. A mechanism according to claim 9, wherein, when a tensile stress is applied between said clip and said manipulating wire, said connecting member is configured to be deformed or broken more easily than said manipulating wire.

12. An apparatus for ligating living tissues comprising:

an introducing tube capable of being inserted into a living tissue;

a manipulating wire movably inserted into said introducing tube;

two or more clips having a proximal end portion, and having an opening/expanding property in which a pinch section is formed at a tip end of an arm section that extends from the proximal end portion;

a mechanism which, when two or more clips are disposed in series in said introducing tube, and said

clips are protruded from said introducing tube,  
prevents a clip other than that mounted at the most  
distal end from being protruded from the introducing  
tube.

5        13. A mechanism according to claim 12, wherein the  
pinch sections of said respective clips are configured  
to clip a proximal end of a clip located at the  
adjacent distal end.

10        14. A mechanism according to claim 12, wherein the  
mechanism has:

        a clip tightening ring engagingly mounted on an  
arm section of said clip, thereby closing a pinch  
section of said clip;

15        engaging means provided at least one of said  
introducing tube and said clip tightening ring, which  
causes said introducing tube and said clip tightening  
ring to be engaged with each other when said clip and  
said clip tightening ring are protruded forwardly of  
said introducing tube, and inhibits said clip  
20        tightening ring from being stored in said introducing  
tube again; and

        a manipulating member movably inserted into an  
introducing tube disposed backwardly of the clip  
tightening ring located at the most proximal end.

25        15. A mechanism according to claim 14, wherein the  
pinch sections of said respective clips are configured  
to pinch a proximal end portion of a clip tightening

ring located at the adjacent distal end.

16. A mechanism according to claim 15, wherein a proximal end portion of said clip tightening ring is cylindrically shaped.

5 17. A mechanism according to claim 15, wherein a proximal end portion of said clip tightening ring is conically shaped.

18. A mechanism according to claim 14, wherein the manipulating wire is disposed backwardly of a distal  
10 end position of the introducing tube, and is configured not to be protruded from the distal end of the introducing tube.

19. A mechanism according to claim 14, wherein, a proximal end portion of a clip tightening ring abuts  
15 against a distal end portion of an introducing tube by means of an expansion member engaged into a proximal end portion of each of said clip tightening rings, and the expansion member is removed from the clip  
tightening ring by means of legation, whereby the  
20 expansion member can be separated from a distal end portion of the introducing tube.

20. A mechanism according to claim 14, wherein there is provided an expansion member whose outer diameter increases when a compression force is applied  
25 to a proximal end portion of each of said clip tightening rings.

21. A mechanism according to claim 14, wherein

said manipulating member is configured not to be protruded from a distal end of the introducing tube.

22. A mechanism according to claim 14, wherein a proximal end portion of the clip tightening ring and a bonding member is configured to abut against a distal end portion of the introducing tube by means of a bonding member mounted on a distal end of said clip during clip protrusion.

23. A mechanism according to claim 14, wherein a connecting member which causes said clip and manipulating wire to be engaged with each other is disposed backwardly of a distal end portion of the introducing tube, and is configured not to be protruded from a distal end of the introducing tube.